

AMENDMENTS TO THE CLAIMS

1. (Cancelled)
2. (Currently Amended) The process of claim 13, said step of forming at least one second V-shaped channel in said second surface further comprising:
forming a plurality of parallel V-shaped channels in said second surface, wherein said first V-shaped channel and said plurality of second V-shaped channels intersect at an array of points defining an array of pores extending through said substrate member from said first surface to said second surface.
3. (Currently Amended) The process of claim 13, said step of forming at least one first V-shaped channel in said first surface further comprising:
forming a plurality of parallel V-shaped channels in said first surface wherein said second V-shaped channel and said plurality of first V-shaped channels intersect at an array of points defining an array of pores extending through said substrate member from said first surface to said second surface.
4. (Original) The process of claim 3, said step of forming at least one second V-shaped channel in said second surface further comprising:
forming a plurality of parallel V-shaped channels in said second surface, wherein said plurality of first v-shaped channels and said plurality of second V-shaped channels intersect at an array of points defining an array of pores extending through said substrate member from said first surface to said second surface.
5. (Currently Amended) The process of claim 13, wherein said substrate member is selected from the group consisting of: silicon, hard plastics and PTFE
6. (Currently Amended) The process of claim 13, wherein said substrate member has a surface layer selected from the group consisting of: silicon oxide, silicon nitride, polyimide, PMMA and PTFE

7. (Currently Amended) The process of claim 13, wherein the method used in said steps of forming said first and second channels is selected from the group consisting of: etching, milling, cutting, molding and extrusion
8. (Currently Amended) The process of claim 13, wherein said pore has a width that is between about 1 nm and 100 μm .
9. (Currently Amended) The process of claim 13, wherein said pore is electrically addressable
10. (Original) The process of claim 2, wherein said array of pores are individually electrically addressable.
11. (Original) The process of claim 3, wherein said array of pores are individually electrically addressable.
12. (Cancelled)
13. (Previously presented): A process to fabricate nanopores and micropores, comprising the steps of:
 - providing an integral substrate member having a thickness and first and second opposing surfaces;
 - forming at least one first V-shaped channel lengthwise in a first direction in said first surface; and
 - forming at least one second V-shaped channel lengthwise in a second direction in said second surface, said second direction being disposed at an angle relative to said first direction,wherein said first channel and said second channel extend inwardly from said first and second surfaces and intersect at a point, said point defining a pore extending through said substrate member from said first surface to said second surface;
 - placing a first crystal into said first channel adjacent said pore;
 - placing a second crystal into said second channel adjacent said pore;

applying a force to urge said first and second crystals towards one another to maintain their position relative to one another;

placing an uncured liquid polymer material into said first and second channels adjacent said first and second crystals;

curing said polymer material to provide a plurality of polymer molecules, the polymer molecules each having a diameter; and

removing said crystals from said pore, said pore now having a size defined by the point of intersection between said first and second crystals and the diameter of one of said plurality of polymer molecules.

14. (Original): The process of claim 13, wherein said crystals are sodium chloride.
15. (Original): The process of claim 14, wherein said sodium chloride crystals are coated with a thin layer of electrically conductive material.
16. (Original): The process of claim 14, wherein said step of removing said crystals is dissolving said crystals.
17. (Withdrawn)
18. (Withdrawn)
19. (Withdrawn)
20. (Withdrawn)
21. (Withdrawn)
22. (Cancelled)
23. (Cancelled)